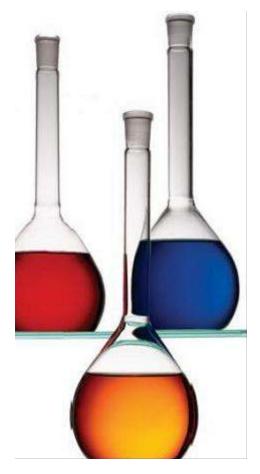
SABIC Innovative Plastics™



May 2010 **Supporting Green House Gas Reduction Through Innovative Material Components**

SABIC - Who We Are



- Established in 1976, SABIC is one of the top five petrochemical companies in the world.
- Total assets over \$72 billion and annual revenue exceeding \$40 billion
- 33,000 employees and operations in more than 100 countries
- 60 world-class manufacturing and compounding plants in locations across the Middle East, Asia, Europe and the Americas
- Extensive array of products including chemicals, polymers, specialty plastics and chemicals, fertilizers and metals

Our 2020 vision is to be the preferred world leader in chemicals





SABIC – Six Strategic Business Units

Chemicals

Olefins, oxygenates, aromatics, fiber Intermediates, industrial gases, linear alpha olefins

Polymers

PE, PP, PET, PVC, PS

Performance Chemicals

Ethoxylates, ethanolamines

Fertilizers

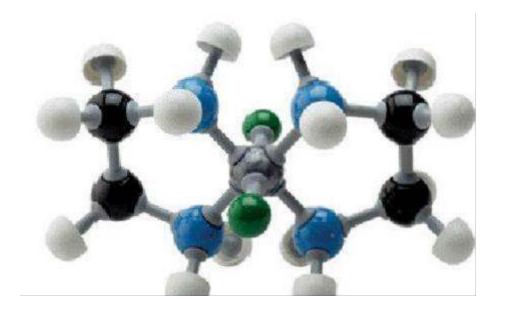
Urea, ammonia and phosphates

Metals

Flat Steel, Long Steel

Innovative Plastics

PC, PP, PPE/PS, PEI,
PBT, ABS, ASA, PC/ABS,
PC/PBT, PPE/PA,
specialty compounds,
automotive glazing







Key Weight Saving Technologies From SABIC Innovative Plastics

1. PC Glazing = 40 lbs potential reduction

2. PPO/PA Fenders = 6.5 lbs

3. PP Tailgate Inner4. PC/PBT Tailgate Outer

5. PP Door Modules = 4.0 lbs

6. PC Steering Wheel = 1.5 lbs

7. PPO Wire Coating = 2.0 lbs

8. PP Front End Module = 4.0 lbs

9. PC/PBT Energy Absorbers = 1.1 lbs

10. PEI Headlamp Reflectors = 0.8 lbs





Programs in Validation or in Production



PPO/PA Body Panels

A proven technology for plastic fenders



Value: Design freedom, significant weight savings

Per vehicle mass reduction:

6-7 lbs

Potential average North American fleet annual savings:

90 million gallons; 800k MT of CO2 *

Currently used on:

Renault CLIO3, TWINGO, MODUS, MEGANE2, SCENIC2,

ESPACE4, Kangoo

PSA T5 307, T7 308, C4, C4 PICASSO

LANCIA YPSILON

MERCEDES VITO

Ford Kuga

Audi R8

BMW SERIES 6 VW New Beetle

Mitsubishi Delica

Hummer H3







Polycarbonate Glazing

A lightweight glazing solution providing design flexibility and styling freedom



Per vehicle mass reduction:

40 lbs

Potential average North American fleet annual savings:

566 million gallons; 5 million MT of CO2 *

Currently used on:

Honda Civic, Seat Leon, GM Corvette

Value: High ductility thermoplastic reduces mass up to 50% compared to glass





PC Co-polymer Steering Wheel





Value: New high ductility thermoplastic reduces mass and eliminates materials that are less easily recycled

Per vehicle mass reduction:

1 to 2 lbs

Potential average North American fleet annual savings:

26 million gallons; 225k MT of CO2 *

Production status:

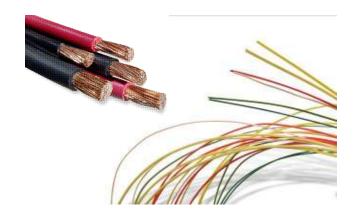
Initial prototype testing: Pass Production tests in progress





Flexible PPO Wire Insulation

A thinner wall, lower mass, insulation for automotive wire



Per vehicle mass reduction:

1 to 3 lbs

Potential average North American fleet annual savings:

39 million gallons; 340k MT of CO2 *

Value: Lower specific gravity and new resin performance may allow smaller, lighter vehicle wiring harnesses

Currently used on:

Toyota Tundra, Corolla, Sequoia, Solara

GMC/Chevy Silverado, Sierra, Yukon, Tahoe, Suburban

Dodge Journey





Weight savings achieved in concept vehicle designs:

		SABIC			Mass	
		Part Wt.	Traditional	Traditional	Savings	
Application	SABIC-IP Solution	(lb)	Material	Part Wt (lb)	(lb)	% Save
Panoramic Roof	Lexan	29.0	Glass	38.7	9.7	25%
Decklid Glazing	Lexan	14.5	Steel	26.8	12.3	46%
Hood Outer	HPPC-Xenoy iQ	14.7	SMC	26.8	12.1	45%
Hood Inner	HPPC-Xenoy iQ	14.7	SMC	26.8	12.1	45%
Doors - Front	HPPC-Xenoy iQ	4.4	Steel	7.9	3.5	44%
Doors - Rear	HPPC-Xenoy iQ	2.9	Steel	5.3	2.4	46%
Fenders	Noryl GTX	4.6	Steel	8.4	3.7	45%
Energy Absorber - Front	Xenoy iQ - Global EA	3.5	Xenoy	3.5	0.0	0%
Energy Absorber - Rear	Xenoy iQ - Hybrid Beam	12.1	Xenoy/Steel	15.2	3.1	20%
Noryl Wire Coating	Noryl	2.4	XL PE	5.5	3.1	56%
			Magnesium			
Steering Wheel	Lexan EXL	na	w/urethane	na	1.5	n/a



GM Volt 2007 <u>Total Save:</u> 64 lbs. (29 kg)

		SABIC Part Wt.	Traditional	Traditional	Mass Savings	
Application	SABIC-IP Solution	(lb)	Material	Part Wt (lb)	(lb)	% Save
Panoramic Roof	Lexan	13.4	Glass	30.4	16.9	56%
Rear Window	Lexan	10.1	Glass	22.7	12.5	55%
Side Windows	Lexan	6.8	Glass	15.4	8.6	56%
Hood Outer	HPPC - Xenoy iQ	15.0	Steel	25.3	10.3	41%
Hood Inner	HPPC - Xenoy iQ	15.8	Steel	20.7	4.8	23%
Doors - Front	HMD - Xenoy	22.7	Steel	36.3	13.6	38%
Doors - Rear RH Only	HMD - Xenoy	4.0	Steel	6.2	2.2	36%
Fenders	HMD - Xenoy	17.2	Steel	28.8	11.7	40%
Quarter Panels	HMD - Xenoy	11.0	Steel	17.6	6.6	38%
Roof Frame Cover	HMD - Xenoy	5.7	Steel	9.2	3.5	38%
Cover Tailgate Outer	HMD - Xenoy	5.3	Steel	10.1	4.8	48%
Tailgate Inner	Verton	9.7	Steel	15.2	5.5	36%



Hyundai QarmaQ 2007

Total Save

135 lbs (61 kg)

Note not all applications listed

SABIC Innovative Plastics" Technologies are available today making vehicle lightweighting available

